

METHOD AND SYSTEM TO ADJUST FOR IMAGE ERRORS INDUCED BY A LENS ARRAY

Abstract of the Disclosure

An imaging apparatus includes an image acquisition section which converts a physical image to a digital image representation using non-ideal optics such as an array lens. This image acquisition results in a digital image representation containing errors or artifacts. A memory in data communication with a processor stores a plurality of compensation parameters selected for use in correcting errors induced by the lens array. The compensation parameters are determined by performing a lens characterization which includes measuring lens performance at a plurality of locations along the lens. After the processor adjusts the image representation, the post-compensated digital image representation may be further processed, stored, transferred, and the like. According to another embodiment of the invention, a non-ideal array lens induces errors in an image representation during a printing or output operation. Similarly, an image processor applies pre-compensation parameters to the desired or ideal image representation in electronic form to compensate for errors which are known to be induced by the lens during the output operation. Accordingly, when the pre-compensated image representation is output using the non-ideal lens, the physical image output appears to have been printed with an ideal lens.

CORRECTION